CLAIND LABORATORY GAS GENERATORS

nitrogen for LC-MS

The important considerations of safety, convenience and cost savings influenced the design of the new nitrogen generator tailored for LC-MS analysers.

The generator is not hazardous and can be installed in the laboratory if required, although it is normally sited remotely with a nylon pipe feed (6 mm dia.) to the instrument.

The advanced technology developed by CLAIND produces pure nitrogen, allowing the **N2 LCMS** generator to supply **any LC-MS** produced **by any manufacturer!**

When compared to costs of bought-in nitrogen supplies the **N2 LCMS** should show a capital repayment time **less than 16 months**. Thereafter, the nitrogen is supplied virtually free of charge.

Independence is the main feature of these generators. They only require a supply of mains electricity for automatic, unattended operation. Pressing a button is the only operation to start up the generator, which operates automatically 24 hours a day, 365 days a year.

Maintenance is limited to changing a few filter elements taking less than 30 minutes per year. The system regenerates itself automatically giving you a continuous, uninterrupted supply of gas.

TESTED WITH

WATERS

APPLERA/APPLIED BIOSYSTEM

VARIAN

THERMOFINNIGAN

MICROMASS

AGILENT

SHIMADZU

MAIN FEATURES

- Ready to use just few minutes after switching on
- Gas production proportional to the consumption with automatic 'Stand-by' when demand falls
- Compact instrument, just 40 cm wide supplied **with or without oil free air compressor fitted internally**
- Very low noise level
- 50 liters internal air buffer included with the generator
- Direct connection to the users LC-MS

WORKING PRINCIPLE

Thanks to the **PSA (Pressure Swing Adsorption)** principle the generator produces nitrogen by compressing ambient air and passing it into a Carbon Molecular Sieve bed (CMS).

Inside the CMS bed, oxygen, moisture, CO_2 and other 'contaminants' are trapped allowing nitrogen to pass through into a holding reservoir.

Nitrogen from the holding reservoir is regulated to a fixed flow and pressure before exiting the generator.

Claind is one of the worldwide major manufacturer of the PSA technology.

LC-MS *series*

gas characteristics

Nitrogen purity according to the LC-MS manufacturers specifications*

Outlet pressure: 7 barg

* LC-MS generators have been tested from Claind with all the main LC-MS now on the market

Models available

N_2 LC-MS 1: nitrogen generator with built in compressor

N_2 LC-MS 0*: nitrogen generator with external air supply

* suggested in case of 2xLCMS or in case of APCI interface when higher flow is requested

technical specifications

Technical specifications	N_2 LC-MS 1	N_2 LC-MS 0
FLOW RATE	max 15 Nl/min	max 38 Nl/min
POWER RATING	850 VA	80 VA
ELECTRICAL SUPPLY	230 Vac - 50 Hz *	230 Vac - 50 Hz *

* 115 Vac - 60 Hz available on demand

Noise level: <60 dB
Operating temperature: between 5°C and 40°C
Safety protection: > 11,5 bar
Consumables: filters and silencers

AIR SUPPLY CHARACTERISTICS*

Inlet Air flow: .....min 110 Nl/min
Inlet Air pressure: .....min 8,5 / max 10 barg
Dew point: .....< +3° C
Particles: .....< 0,01 µm
Oil vapors: .....< 0,01 mg/m^3

* Only for N2 LC-MS 0

dimensions

	N_2 LC-MS 1	N_2 LC-MS 0
Height	119 cm	119 cm
Width	40 cm	40 cm
Depth	80 cm	80 cm
Weight	119 kg	112 kg

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